

REMARKS

Claims 5-12, 21-28, 31-34, 39, 40, 43-46, and 51-104 are pending, with claims 5, 7, 9, 11, 21, 23, and 53-60 being independent. Claims 13-20, 35-38, and 47-50 are cancelled by this amendment without waiver or prejudice.

The title stands objected to for not being descriptive. Applicants previously amended the title in the response to the previous non-final office action to make the title more descriptive. As such, applicants respectfully request reconsideration and removal of the objection to the title.

Claims 21-24, 51, and 52 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Aziz et al. (6,392,339) ("the Aziz '339 patent"). Applicants respectfully traverse the rejection.

Independent claim 21 recites a light emitting device that includes an organic light emitting element comprising a light emitting layer having a first organic compound, a hole transporting layer having a second organic compound, and an electron transporting layer having a third organic compound. The light emitting device includes a first region including the first organic compound and the second organic compound between the light emitting layer and the hole transporting layer, and a second region including the second organic compound and the third organic compound between the light emitting layer and the electron transporting layer. Applicants respectfully request reconsideration and withdrawal of the rejection because the Aziz '339 patent fails to describe or suggest multiple mixed regions in separate locations, namely a first region that includes the first organic compound and the second organic compound between the light emitting layer and the hole transporting layer and a second region that includes the second organic compound and the third organic compound between the light emitting layer and the electron transporting layer.

Instead, the Aziz '339 patent describes a single mixed region (38 of Fig. 2 or 138 of Fig. 3) between a hole transporting layer and an electron transporting layer, one of which also serves as a light emitting layer. Although the Aziz '339 patent describes that the mixed region (38 of Fig. 2 or 138 of Fig. 3) may include more than one layer, the Aziz '339 patent does not describe multiple mixed regions that are in separate locations relative to the light emitting layer, as recited in claim 21. Instead, the mixed region in the Aziz '339 patent is merely a single mixed region

that may include multiple layers, and that is located between the hole and electron transporting layers, one of which also serves as a light emitting layer.

The structural differences between the device in the Aziz '339 patent, which suggests a single mixed region adjacent to a light emitting layer, and the device recited in claim 21, which includes multiple mixed regions in separate locations relative to a light emitting layer, can be seen, for example, by reference to Figure 4 and the corresponding text (pages 25 and 26) of the present application. Figure 4 and the corresponding text describe a first mixed region 407 between a light emitting layer 406 and a hole transporting layer 405 and a separate, second mixed region 409 between the light emitting layer 406 and an electron transporting region 408. Thus, for example, Figure 4 illustrates two, separate mixed regions. The Aziz '339 patent simply does not describe or suggest two, separate mixed regions. Moreover, the suggestion in the Aziz '339 patent that the single mixed region may include multiple layers can not be read to mean that there are multiple, separate mixed regions with one being between the light emitting layer and the hole transporting layer and one being between the light emitting layer and the electron transporting layer.

For at least these reasons, applicants respectfully request reconsideration and withdrawal of the rejection of claim 21 and its dependent claims 22 and 51.

Similarly to claim 21, claim 23 recites a light emitting device including an organic light emitting element that includes a light emitting layer including a first organic compound, a hole transporting layer that includes a second organic compound, and an electron transporting layer that includes a third organic compound. The light emitting device includes a first mixed layer that includes the first organic compound and the second organic compound between the light emitting layer and the hole transporting layer, and a second mixed layer that includes the second organic compound and the third organic compound between the light emitting layer and the electron transporting layer.

For at least these reasons discussed above with respect to claim 21, applicants respectfully request reconsideration and withdrawal of the rejection of claim 23 and its dependent claims 24 and 52.

Claims 21-28, 39, 40, 51-68, and 81-104 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Aziz et al. (6,392,250) ("the Aziz '250 patent"). Applicants respectfully traverse the rejection.

With respect to independent claims 21 and 23, the Aziz '250 patent describes an organic light emitting device having structure similar to that described in the Aziz '339 patent. See the Aziz '250 patent, col. 5, lines 11-24, and Fig. 2. Thus, for the reasons discussed above with respect to claims 21 and 23, the Aziz '250 patent also fails to describe or suggest the features of multiple, mixed regions in separate locations relative to a light emitting layer. Specifically, the Aziz '250 patent does not describe or suggest a first mixed region between the light emitting layer and the hole transporting layer and a separate second mixed region between the light emitting layer and the electron transporting layer.

For at least these reasons, applicants respectfully request reconsideration and withdrawal of the rejection of independent claims 21 and 23, and their respective dependent claims 22, 24-28, 39, 40, 51, and 52.

With respect to independent claims 53-60, the Aziz '250 patent also fails to describe or suggest features of these claims for similar reasons. More specifically, for example, independent claim 53 recites a light emitting device including an organic light emitting element that includes, among other features, an organic compound film that includes a hole transporting region, a first mixed region, a light emitting region, a second mixed region and an electron transporting region, that are connected in the noted order with the hole transporting region being nearest to the anode and the electron transporting region being nearest to the cathode. As discussed above, the Aziz '250 patent fails to describe multiple, mixed regions in separate locations, such as a first mixed region between the hole transporting region and the light emitting region and a second mixed region between the light emitting region and the electron transporting region. Rather, the Aziz '250 patent describes a single mixed region between a hole transporting layer and an electron transporting layer.

Similarly, each of independent claims 54-60 recites a light emitting device that includes, among other features, an organic compound film that includes a hole transporting region, a first mixed region, a light emitting region, a second mixed region, and an electron transporting region,

that are connected in the noted order such that hole transporting region is nearest to the anode and the electron transporting region is nearest to the cathode. As such, these claims are allowable over the Aziz '250 patent for the reasons discussed above with respect to claim 53.

For at least these reasons, applicants respectfully request reconsideration and withdrawal of the rejection of independent claims 53-60, and their respective dependent claims 61-68 and 81-104.

Claims 5-12, 31-34, and 43-46 stand rejected under 35 U.S.C. §103(a) as being unpatentable over the Aziz '339 patent and in further view of So et al. (5,925,980). Applicants respectfully traverse this rejection.

Independent claim 5 recites a light emitting device comprising an organic light emitting element that includes a hole injecting layer having a first organic compound in contact with an anode, a hole transporting layer having a second organic compound, and a region that includes the first organic compound and the second organic compound between the hole injecting layer and the hole transporting layer. Applicants respectfully request reconsideration and withdrawal of the rejection because the Aziz '339 patent and So, either alone or in combination, fail to describe or suggest a region that includes the first organic compound and the second organic compound and is located between the hole injecting layer and the hole transporting layer.

As discussed above, the Aziz '339 patent describes an organic light emitting device 30 that includes "a hole transport region 36 comprising a hole transport material (HTM) on the anode 34, a mixed region 38 comprising a mixture of a hole transport material and an electron transport material on the hole transport region 36, an electron transport region 40 comprising an electron transport material (ETM) on the mixed region 38, and a cathode 42 on the electron transport region 40." See the Aziz '339 patent, col. 4, lines 43-56 and Fig. 2. The Aziz '339 patent does not describe or suggest a region that includes the first organic compound and the second organic compound between the hole injecting layer and the hole transporting layer, as recited in independent claim 5. So does not remedy this failure of the Aziz '339 patent.

Independent claim 7 recites a light emitting device that includes, among other features, a mixed layer that includes a first organic compound and a second organic compound and located

between the hole injecting layer and the hole transporting layer. As discussed above, the Aziz '339 patent and So, either alone or in combination, fail to describe or suggest this feature.

Independent claim 9 recites a light emitting device that includes, among other features, a region having the first organic compound and the second organic compound and located between the electron injection layer and the electron transporting layer. As discussed above, the Aziz '339 patent and So, either alone or in combination, fail to describe or suggest this feature.

Independent claim 11 recites a light emitting device that includes, among other features, a mixed layer having the first organic compound and the second organic compound and is located between the electron injection layer and the electron transporting layer. As discussed above, the Aziz '339 patent and So, either alone or in combination, fail to describe or suggest this feature.

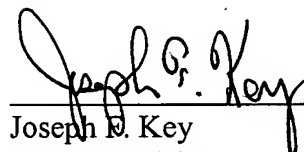
For at least these reasons, applicants respectfully request withdrawal of the §103(a) rejection of independent claims 5, 7, 9, and 11, and their respective dependent claims.

Claims 69-80, which depend from their respective independent claims 54-56 and 58-60, stand rejected under 35 U.S.C. §103(a) as being unpatentable over the Aziz '250 patent. For at least the reasons discussed above with respect to independent claims 54-56 and 58-60 and based on their dependency from these independent claims, applicants respectfully request withdrawal of the rejection of dependent claims 69-80.

No fees are believed to be due. However, during the pendency and the prosecution of this application, please apply any deficiencies or credits to deposit account 06-1050.

Respectfully submitted,

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